

## **Abstract**

A robotic single axis system includes an effector moveable around a single rotating axis. The system is substantially concentrically arranged and mounted adjacent a wafer chuck of a precision stage. The robotic effector has a tangential distal end with a carrying face for positioning the wafer between concentric pinlifters raising from the wafer chuck. The pinlifters load and unload the wafer from the effector. The effector reaches with addition of the stage's travel into a cassette and alternating into a prealigner positioned on top of each other on an adjacent elevator. The elevator provides Z-axis movement so that the effector may load and unload wafers from the cassette, and alternating inserts a carried wafer into the prealigner.